FABA ANNUAL REPORT

CALENDAR YEAR 2008

Working together to achieve
economic and environmental results

FINANCIAL & BUSINESS ASSISTANCE

DNR

The Financial and Business Assistance (FABA) team at the Iowa Department of Natural Resources is committed to helping transform Iowa's environmental future in ways that positively impact our economy and our society.

The FABA team is equipped to work with clients to provide financial and technical assistance resulting in cost-effective improvements, opportunities for increased productivity and positive environmental impacts.

Our programs are designed to eliminate obstacles that stand in the way of:

- our customers continued improvement
- reducing waste
- opening or creating markets
- reducing greenhouse gas emissions
- lower operating costs
- landfilling
- improved knowledge of environmental issues
- saving money
- conservation of natural resources
- protecting air and water quality

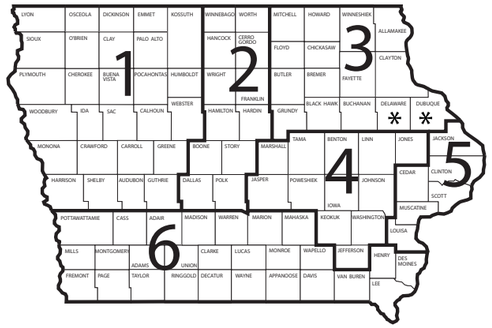
The following report provides a summary of the Financial and Business Assistance programs and 2008 results.

Contents

IOWA WASTE EXCHANGE

The Iowa Waste Exchange (IWE) Representatives work in a one-on-one environment with clients of all sizes to help identify waste streams and where those waste streams can create benefits. Businesses, schools, hospitals and communities may take advantage of our free non-regulatory services to keep items out of the landfill and in production.

Iowa Waste Exchange Primary Service Areas



The updated database is now on-line provides extensive lists of materials that are available for recycling or reuse at no charge. Over the last 18 years successes continue to positively impact Iowa's economy and our way of life by providing waste exchange services.

Allied Blending and Ingredients Recycling Success

Allied Blending and Ingredients' corporate office is located in Keokuk, Iowa where they blend, package and ship food ingredients nationwide. Jeff Brunenn, Plant Manager and Roger Bullard, Maintenance Manager began an extensive plant wide recycling program with the help of the IWE. More than 500 tons have been diverted annually from the landfill, saving the company over $35,000 per year in disposal costs. A revenue stream of $4,000 per year was created through the sale of baled cardboard and stretch wrap that would otherwise be landfilled.

Since their recycling efforts started they have recycled 144 tons of super sacks, 78 tons of plastic and 52 tons of cardboard annually. The IWE diverted 264 tons annually of powdered food ingredient waste to Nutracycle in Tipton, Iowa for use. More than 270 tons of poly lined paper bags/mixed office paper were used as a fuel source for BFC Gas & Electric in Cedar Rapids.

Through the team work of Allied Blending and Ingredients personnel and the IWE the plant appearance, cleanliness and safety has also improved by removing waste, increasing storage space and recycling. Since these changes have been made the company received a superior rating from the American Institute of Baking for the last five years.

Habitat for Humanity and the IWE Working Hand in Hand

More than 80 northeast Iowa businesses and individuals impacted by the 2008 natural disasters have received free carpet valued at nearly $50,000, thanks to the Department of Natural Resources IWE and the Habitat for Humanity Restore of Greater Des Moines (Habitat).

This fall, Habitat received a donation of commercial-grade carpeting from Bentley Prince Street in California to be distributed to Des Moines flood victims. Damage sustained in the Des Moines area was far less than had previously been estimated, resulting in nearly 50,000 square feet of carpet remaining in Habitat's limited warehouse space.

The IWE was contacted by Habitat to coordinate distribution of the remaining carpet. IWE Representatives knew Butler and Black Hawk counties had an overwhelming need for materials after destruction from an EF5 tornado in May and extensive flooding in June.

Individuals and business owners hit by the natural disasters were able to receive carpet and rebuild after the floods and disasters. Additional resources from around the state were directed to disaster recovery efforts through the IWE. Some of the materials might otherwise end up in a landfill.

Davis Brown Towers Adds a Touch of Glass

Creating a masterpiece from 190 front-load, domed washing machine windows was accomplished by one imaginative Moberg Gallery artist. This artist - known as STRETCH - just completed installation of a 56' x 26' wall comprised of these recycled windows. Each dome has colored, programmable LED lights behind it and can be programmed with infinite colors and patterns.

The art work was executed for the Davis Brown Tower's street level interior lobby in downtown Des Moines and the domes were a result of an off spec shipment received from Electrolux of Webster City. The vendor agreed to pay for the error and instructed staff members at Electrolux to dispose of the windows.

Instead of shipping the windows directly to the landfill, Electrolux contacted the IWE. Through this interaction some of the windows were shipped to a commercial recycling company, but due to logistical difficulties and challenges in handling and unpacking the windows it appeared that the remaining windows were doomed for the landfill.

Being familiar with the inspired "found" art work of artist T.J. Moberg, the IWE inquired at the Moberg Gallery regarding the interest of using the domed windows for art purposes. A sample was left with gallery director, and within hours they had an interested artist, STRETCH, who was later commissioned to provide the artwork for the Davis Brown Towers building project where the washing machine windows were incorporated.

The Iowa Waste Exchange produced the following results during calendar year 2008:	
Number of companies assisted (in house)	1,192
Number of companies assisted (on-site)	1,740
Number of matches	530
Tons matched	180,46
Total disposal cost savings for Iowa companies	$5.9 million

POLLUTION PREVENTION SERVICES

Pollution Prevention Services provides confidential, non-regulatory environmental technical assistance at no cost to Iowa's business and industry, institutions and government agencies with 100 or more employees. Pollution Prevention Services offers an assortment of assistance opportunities and services including:

- Focused and facility-wide assessments
- Environmental management systems assistance
- Nationally recognized Pollution Prevention Intern Program
- Workshops and educational training

Six construction and demolition workshops were conducted around the state in cooperation with DNR Air Quality, the Department of Economic Development and the Iowa Waste Reduction Center to provide compliance information to builders, appraisers, real estate agents, local building code officials, architects and engineers. In December, Pollution Prevention Services again worked in cooperation with DNR Air Quality, the Department of Economic Development and the Iowa Waste Reduction Center as well as the Rebuild Iowa Office to conduct a Disaster Recovery Conference providing compliance and sustainable green building information to architects, engineers, contractors, businesses, industries, city, county and community leaders and consultants due the magnitude of natural disaster in the state in 2008. These workshops were well attended demonstrating a need for compliance information coupled with pollution prevention information.

Two workshops were held in 2008 to provide compliance and pollution prevention information to clients including all industry groups regarding proper management of hazardous waste in conjunction with the Iowa Strategic Goals Program, and hospitals in conjunction with the Kansas State University Pollution Prevention Institute.

The Pollution Prevention Intern Program placed 22 interns in 21 projects in 2008. Nineteen host companies were new to the program in 2008. Interns with the Pollution Prevention Intern Program have a unique opportunity to experience a partnership of academia, industry and government all working together toward a common goal. After one week of training in pollution prevention methodologies, interns help manage projects in Iowa industries. For eleven weeks they work on-site to identify and implement cost effective and environmentally feasible improvements for their host company. Two of the 21 projects provided 6 month internships due to the scope of the projects.

The Intern Program collaborated again on a regional hospital circuit rider project with the Kansas Pollution Prevention Institute for nine hospitals in Iowa and Nebraska. The circuit rider assisted the hospitals in identifying remaining sources of mercury as well as identifying energy efficiency opportunities.

This year's intern program resulted in economic savings of more than $1.5 million. The environmental savings:

Intern Program Economic Savings		
CATEGORY	REDUCTION	COST SAVINGS
Water Conservation	12,887,600	$101,706
Solid Waste	581 Tons	$119,561
Hazardous Waste	95,850 gallons	$587,307
Energy	4,263,029 kWh 479,317 therms	$247,699 $471,636
Total		**$1,527,909**

2008 Assistance Statistics	
Technical assistance on-site requests	23
Assessments	8
Follow-up assessments	25
Site visits	70
Informational/marketing presentations	11
Informational materials sent	1,581
Intern Projects	21
Workshops	9

Global Savings 2008	
Air Emissions Avoided	
CO	23.2098 tons
SO2	65.1942 tons
NOX	37.9141 tons
PM10	12.1018 tons
VOCs	9.8431 tons
Greenhouse Gas Diverted	
CO2	18,945.98 tons
N20	600.3354 tons
CH4	2,983.434 tons
CFC	163.0794 tons

SCRAP TIRE PROGRAM

Permitting and Enforcement Activities

In 2008, Iowa's Scrap Tire Program registered 29 scrap tire haulers and permitted five scrap tire processors. The registered tire haulers transported nearly 4.25 million passenger tire equivalents from Iowa and nearly another 1.08 million from outside Iowa for recycling. Iowa scrap tire processors processed 2.93 million passenger tire equivalents from Iowa and 2.02 million from outside Iowa into a variety of marketed products.

Playground Safe Surfacing Initiative

During 2008, the Department implemented several playground safe surfacing projects using recycled rubber tiles to surface playground fall zones around and transition areas between playground equipment at schools, city parks, state parks and at Honey Creek Resort State Park.

The purpose of this initiative is to heighten awareness of the benefits of recycling in general and the recycling of Iowa scrap tires in particular; support economic development of crumb rubber for use in manufacturing processes; improve playground access for all persons; reduce playground injuries due to falls; and reduce on-going costs associated with playground surfacing maintenance

Grant awards were made in the form of recycled rubber tiles. Through this matching grant initiative, safe and accessible play areas for Iowa's school children and park visitors are provided. In addition, as a requirement of receiving grant assistance, educational programs or events showcasing the long term benefits of recycling in general and the benefits of recycling scrap tires in particular are required.

The playgrounds are surfaced with recycled rubber tiles manufactured by Welch Products, Inc. of Carlisle, Iowa using several million pounds of crumb rubber derived from Iowa scrap tires processed by GreenMan Technologies of Des Moines. Because of its compression capabilities, the new playground surface greatly reduces injuries due to falls from play equipment and significantly improves handicapped accessibility. The recycled rubber tiles replace common playground surfacing materials like wood chips and pea gravel while decreasing on-going maintenance costs.

Playgrounds surfaced with the recycled rubber tiles will meet requirements of the Americans with Disabilities Act (ADA) and comply with Consumer Product Safety Commission (CPSC) certification guidelines once installed. Welch Products, Inc. will provide ADA and CSPC certification upon project completion.

School Playground Safe Surfacing Initiative

Partnering with the Iowa Association of School Boards, 25 schools were selected from proposals submitted to receive a matching grant in the form of recycled rubber tiles, not to exceed 1,100 sq. feet.

Iowa schools awarded matching grants for the Playground Safe Surfacing Initiative:

Schools	City
Anderson Elementary	*Bondurant*
Aurelia Elementary	*Aurelia*
Baxter Elementary	*Baxter*
Central Elementary Kindergarten Bldg.	*Elkader*
Crestwood Elementary School	*Cresco*
Durant Elementary	*Durant*
Gilmore City-Bradgate Elementary	*Gilmore City*
Glidden-Ralston Elementary	*Glidden*
Harris-Lake Park Elementary	*Lake Park*
Hills Elementary	*Des Moines*
Ireton Elementary School	*Ireton*
J.C. Hoglan Elementary	*Marshalltown*
Karen Acres Elementary	*Urbandale*
Lakeview Elementary	*Solon*
Mid-Prairie Kalona Elementary	*Kalona*
Pekin Elementary	*Packwood*
Prairie Valley Elementary	*Callendar*
Prairie View Elementary	*Cedar Rapids*
Roland Story Elementary	*Story City*
Sunset Heights Elementary	*Webster City*
The Early Childhood Learning Center	*Cherokee*
West Elementary	*Polk City*
West Hancock Elementary	*Britt*
Westridge/Thode-Rouse Child Development Center	*Waterloo*

City/County Playground Safe Surfacing Initiative

A Request for Proposals was issued to cities and counties. Twelve proposals were received (all from cities) and a matching grant awarded in the form of recycled rubber tiles, not to exceed 1,500 sq. feet.

Cities awarded matching grants for the Playground Safe Surfacing Initiative:

City Parks	City
2nd and Rose Park	*Swisher*
5th Ward Park	*Maquoketa*
Blakesburg Elementary	*Blakesburg*
Evergreen Park	*Des Moines*
Kalona City Park	*Kalona*
Lions Park	*Urbandale*
Lower City Park	*Iowa City*
MEGA-10 Park	*Marshalltown*
Parkersburg City Park	*Parkersburg*
Trailridge Park	*Huxley*
West Side Park	*Dyersville*
Winthrop City Park	*Winthrop*

If desired, schools and selected cities may purchase additional tiles. Grant Recipients are responsible for concrete subsurfacing and installation with oversight by Welch Products, Inc.

State Park Playground Safe Surfacing Initiative
The Playground Safe Surfacing Initiative provided funding for the purchase of recycled rubber surfacing tiles for 23 playgrounds in 18 State Parks and for the playground at Honey Creek Resort State Park to meet the needs and improve safety for state sark visitors. State park staff will construct the concrete pad subsurface and install the playground tiles at the following State Parks.

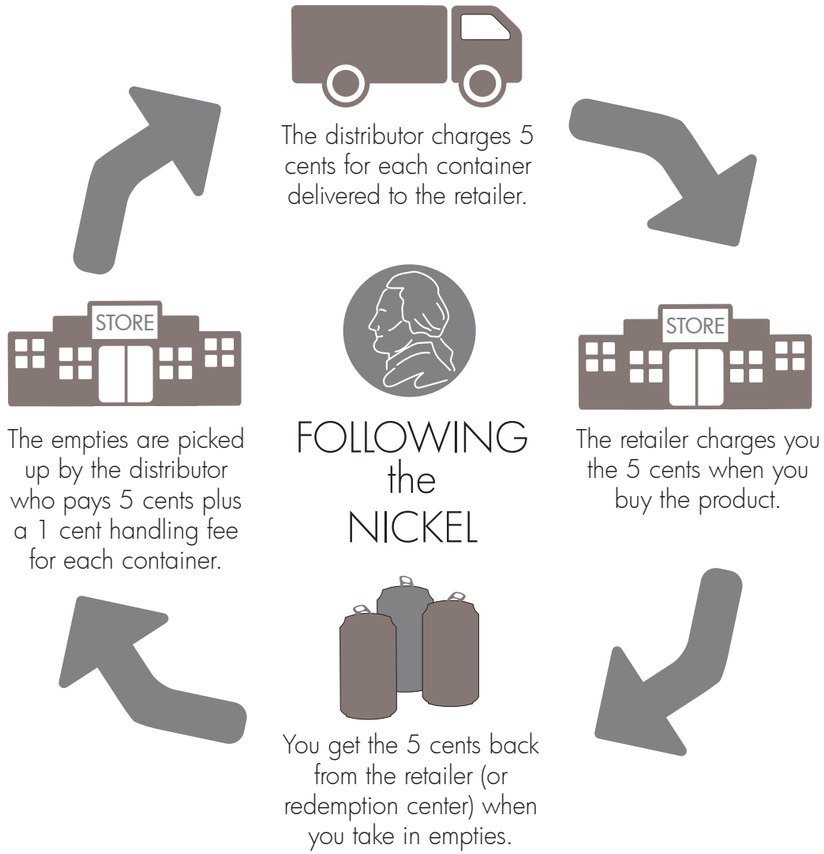
Iowa State Parks participating in the Playground Safe Surfacing Initiative:

State Parks	County
Backbone – two playground areas	*Delaware*
Beeds Lake	*Franklin*
Bellevue	*Jackson*
Big Creek	*Polk*
Brushy Creek – two playground areas	*Webster*
Geode	*Henry*
George Wyth Memorial – two playground areas	*Black Hawk*
Honey Creek	*Appanoose*
Lacey-Keosauqua	*Van Buren*
Lake McBride – two playground areas	*Johnson*
Lake of Three Fires	*Taylor*
Maquoketa Caves	*Jackson*
Nine Eagles – two playground areas	*Decatur*
Pilot Knob	*Hancock*
Pleasant Creek	*Linn*
Prairie Rose	*Shelby*
Rock Cree	*Jasper*
Stone	*Plymouth*
Wapsipinicon	*Jones*

BEVERAGE CONTAINER DEPOSIT LAW

Since 1979, Iowa Code Chapter 455C has established the environmental program with financial incentives commonly called the "Bottle Bill." Relying on a system of deposits, refunds, and handling fees, the Bottle Bill is responsible for the annual recycling of thousands of tons of carbonated soft drink and alcoholic beverage containers.

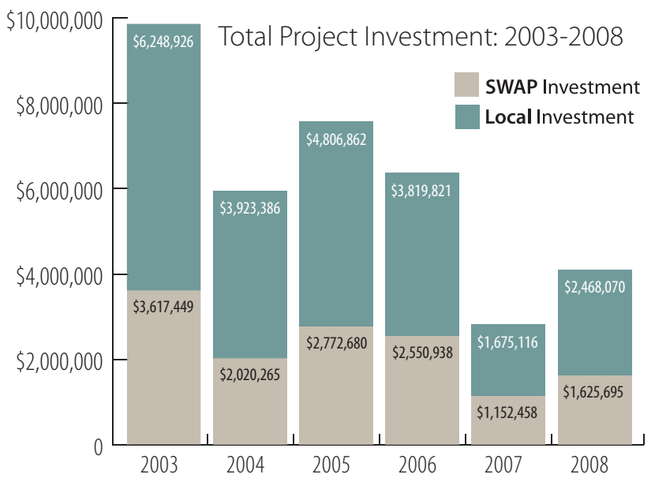
The 2008, legislature passed a $1 million grant program for improving Redemption Centers, the private small businesses that are key links in the Bottle Bill system. Administrative rules to govern the grants program were instituted on an "emergency" basis so that by late October awards were announced for funding improvements for some 93 facilities in every part of the state. Grants are going to help Redemption Centers do basic structural maintenance and repairs, and to upgrade their container handling and sorting operations in order to provide all Iowans better, more cost effective services.



SOLID WASTE ALTERNATIVES PROGRAM

The Solid Waste Alternatives Program (SWAP) was established to reduce the amount of solid waste generated and the amount and toxicity of solid waste landfilled in Iowa. Since its inception, this program has conservatively diverted more than 15.2 million tons of solid waste from Iowa landfills, and continues diverting materials daily. SWAP provides financial and technical assistance to implement pollution prevention, source reduction, recycling, market development, public education, and other solid waste management opportunities. Businesses, government agencies, public and private groups and individuals are all eligible to apply through quarterly competitive application rounds. Program funds, awarded in the form of forgivable, zero and three-percent loans, support Iowa programs and projects that result in landfill diversion, waste reduction, waste management efficiencies and related education efforts. In 2008, SWAP provided financial assistance to 27 applicants. More than $1.6 million dollars was awarded that leveraged another $2.7 million in local investment for a variety of landfill diversion and greenhouse gas emission reducing projects.

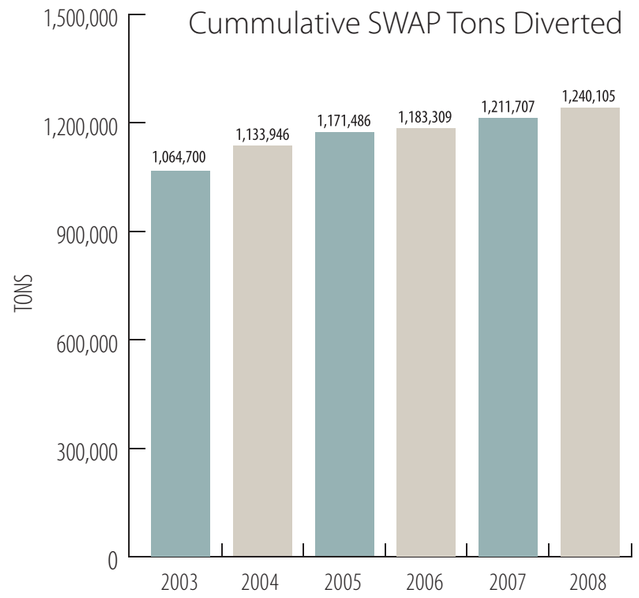
SWAP represents the only state financial assistance tool geared towards minimizing Iowa's solid waste generation and landfill disposal. SWAP provides a funding mechanism from which small and large solid waste management projects and programs can immediately be implemented to begin to reduce landfilling while preserving natural resources, air and water quality, reducing greenhouse gas emissions, providing economic development, and creating jobs.

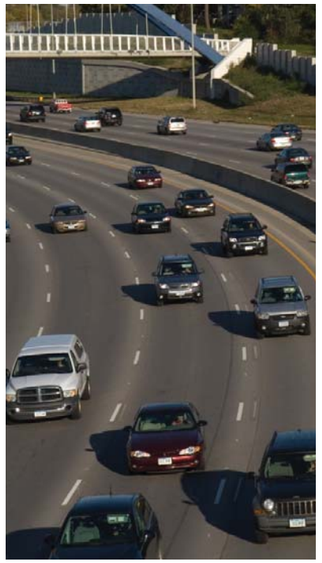


Reducing the amount of solid waste being generated and landfilled is more than simply not filling a hole in the ground with trash. There are significant benefits to waste reduction, reuse, and recycling activities:

- Preserves groundwater quality and reduces consumption of energy, water and other natural resources
- Generates significant statewide economic benefits – Iowa's Recycling Economic Impact Study, 2007, determined that the recycling industry supports nearly 15,800 Iowa jobs and directly generates more than $4 billion in industrial output annually within the state
- Reduces operating costs
- Avoids unnecessary mining, deforestation, and other natural resource depletion activities
- Reduces the potential for air and groundwater contamination
- Reduces the release of greenhouse gas emissions
- Reduces long-term monitoring and remediation cost concerns associated with landfilling

SWAP and Greenhouse Gas Emissions
Greenhouse gas emissions are positively impacted through the projects implemented through SWAP. For example, projects implemented with SWAP funding have accounted for a reduction of nearly 8.5 million tons of greenhouse gas emissions (MTCEs). This is equivalent to nearly 31 million tons of carbon dioxide equivalents, or the same as removing 5.7 million cars from the roadway.





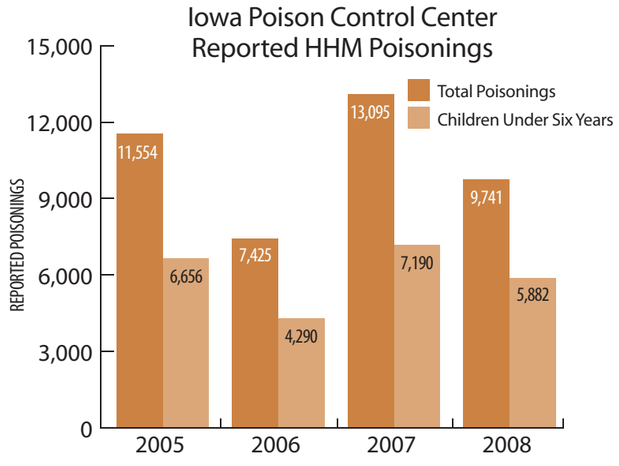
HOUSEHOLD HAZARDOUS MATERIAL

Our Household Hazardous Materials (HHM) Programs provide a wide array of opportunities for urban and rural households, small businesses, schools, and farming operations to learn about the dangers of common household products and chemicals used in their place of business or school or on their farm and provides proper disposal opportunities at little to no cost. Programs also teach proper storage and disposal of hazardous waste. HHM programs are funded through a portion of the solid waste tonnage fee and HHM retailer permits.

What is the value of HHM collection and public awareness programs?

HHMs possess any or all of the following characteristics:

- Toxic – poisonous, causing cancer or other health problems
- Corrosive – destroys human tissue or corrodes metal
- Flammable – easily ignitable and will burn
- Reactive – explosive through exposure to heat, sudden shock, pressure or comes into contact with incompatible chemicals



HHMs contain many of the chemical types found in industrial and commercial hazardous waste. Though individually less concentrated, aggregated in garages, on shelves, in the trash, in collection vehicles or in the landfill, HHMs should be afforded the same considerations which banned industrial and commercial grade chemical waste from the landfill.

These products may make life's chores easier but they also pose a significant threat to our health, safety and environmental quality. Health effects caused by hazardous waste can be acute (sudden or immediate onset of severe symptoms) or chronic (gradual onset of symptoms occurring through repeated exposures over an extended period of time).

Children are of special concern, as they are often more susceptible to toxins than adults and the impacts more severe as their systems have not yet fully developed. Exposures may impair their immune and reproductive systems and interrupt physical and mental development. HHMs are the leading cause of poisonings in children. Through November 2008, the Iowa Poison Control Center reported nearly 10,000 exposures to household hazardous materials. Of the reported poisonings, 60 percent occurred in children under the age of six. Solid waste collectors, landfill operators, and the equipment they use are put at risk of injury and damage due to explosions, fires, toxic fumes, etc. when hazardous waste is placed in the trash. Iowa towns have reported explosions in sewer lines and basements resulting from improper disposal.

Hazardous waste also has a negative impact on the environment. It contaminates groundwater, surface water and the land, can impact air quality, and compromises the effectiveness of septic systems and wastewater treatment plant operations. Aquatic life is also at risk due to improper disposal.

Regional Collection Centers

Regional Collection Centers (RCCs) are permanent collection facilities designed to assist the public and conditionally exempt small quantity generators (CESQG), with proper management and disposal of hazardous waste. RCCs accept specific types of hazardous waste for disposal either through local outlets or through contracted service. They also provide a materials exchange (Swap Shop) and work to educate Iowans in proper purchasing and management techniques for HHMs.

Currently 22 Main Facilities and 37 satellite facilities are operating across the state serving a total of 88 counties. Counties participate in the RCC program in one of three ways:

RCC Main Facility – a permanent facility where the public has on-going access to properly manage and dispose of hazardous waste.

RCC Satellite Facility – a permanent facility where the public has regular access to properly manage and dispose of hazardous waste. Through contractual agreement with a Main Facility, hazardous materials collected at Satellite Facilities are transported to the Main Facility for final processing and disposal via a licensed hazardous waste management company.

RCC Mobile Service – through contractual agreement with a Main Facility, a mobile collection trailer travels to individual locations in the partnering counties where collection events are scheduled two or more times each year.

Note: Due to the timing of reporting requirements, the accomplishments listed to the right cover Fiscal Year 2008

Regional Collection Center Program Summary of 2008	
Establishment grants	$446,636
Operating assistance support	$318,510
Total cost to the department	$765,146
Total hazardous waste collected	3,472,467 lbs
Total hazardous waste contracted for disposal	912,478 lbs
Operations support per pound – contracted disposal	$0.34
Number of participant households	24,198
Average Household Hazardous Waste collected per participant	120 lbs.
Number of CESQG participants	1,451
Average hazardous waste collected per participant	296 lbs.

Regional Collection Centers witnessed an increase in the amount of materials collected in 2008. Nearly 3.5 million pounds of hazardous waste was removed from the solid waste stream, a 17 percent increase over 2007.

Regional Collection Center Establishment Grant Program

In 2008, several awards were made to counties joining the Regional Collection Center Program and to existing RCCs allowing them to expand the services they offer to additional counties. A total of $446,636 in financial assistance was awarded to:

Howard County – established a satellite facility
Winneshiek County – established a satellite facility
Marshall County – expanded its satellite facility
Cass County – expanded its satellite facility to a main facility and added Adair and Guthrie Counties to its service area
Woodbury County – established a main facility
Fremont County – established a main facility
Wapello County – established a main facility and added Davis County to its service area.

In summary, seven new counties joined the RCC program. One existing satellite facility expanded to a main facility adding one existing and one new county to their service area and one county expanded its existing satellite facility to meet the needs of business and household hazardous waste generators.

Regional Collection Center Establishment Marketing

A goal of the Department is to assist every county in providing on-going proper disposal opportunities for hazardous materials generated in the home and small businesses. The success in attracting additional counties to the Regional Collection Center program, described above, is due at least in part to a coordinated effort to reach decision makers in those counties without hazardous materials disposal opportunities.

The Department initiated a marketing campaign directed towards the counties that had limited or no HHM collection opportunities early in 2008.

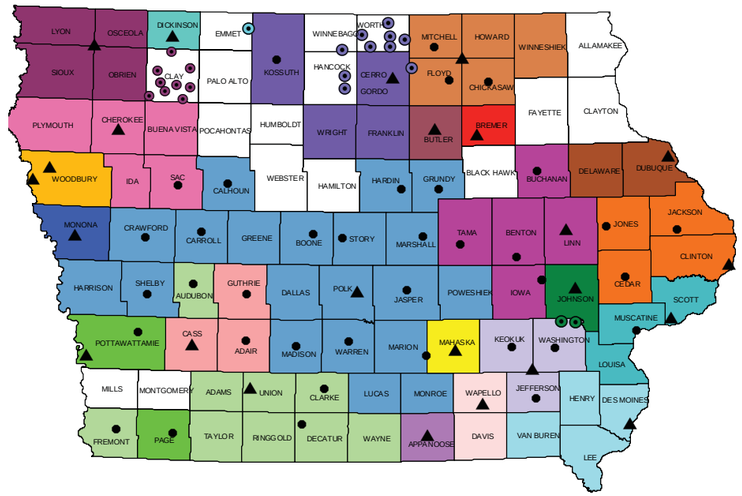
Letters and brochures introducing the Regional Collection Center Establishment Grant program were initially sent to several entities in each county including City Clerks, County Supervisors, Landfill Commissions, County Environmental Health and Sanitarians, and County Conservation Boards. Follow-up phone calls where then made to all counties.

These efforts resulted in five in-person presentations made to interested counties at their request. From the five presentations, four counties have currently established Regional Collection Center programs in their counties (Fremont, Woodbury and a joint program between Wapello and Davis).

The Department continues to be in contact with and assist counties in the local decision-making process for additional counties to establish a regional collection center program.

Regional Collection Centers

Regional Collection Centers (RCC) are permanent colllection facilitites designed to assist the public and small businesses with proper management of hazardous materials.



▲ RCC Main Facilites ● Satellites

- Appannose Co. RCC
- Bremer Co. RCC
- Butler Co. RCC
- Cass Co. RCC
- Cedar Rapids / Linn Co. RCC
- Clinton Co. RCC
- Council Bluffs RCC
- Dickinson Co. RCC
- Dickinson Serviced Cities
- Dubuque Co. RCC
- Floyd, Mitchell, Chickasaw RCC
- HazChem Center of SE Iowa
- Iowa City RCC
- Iowa City Serviced Cities
- Landfill of North Iowa
- LNI Serviced Cities
- Mahaska Co. RCC
- Metro Waste Authority
- Monona County RCC
- NIASWA RCC
- NIASWA Serviced Cities
- PCB RCC
- Prairie and Partners RCC
- Scott Co RCC
- SEMCO
- Sioux City RCC
- Wapello Davis Co RCC
- Woodbury Co RCC
- Unserviced Counties

Iowa Household Hazardous Materials Survey

Initiated in 2007, the Department contracted with the Center for Social and Behavioral Research at the University of Northern Iowa to conduct a telephone survey to assess adult Iowans' behaviors and opinions on issues related to HHMs. Specifically the survey focused on general attitudes and behaviors related to the environment, personal knowledge and behaviors about HHMs, HHM behaviors and attitudes, and four general demographics.

The final report was issued in the summer of 2008 and will be used to develop new consumer information and public awareness materials and facilitate efforts to increase participation at regional collection centers. These planned efforts are included later in this report under 2009 Planned Activities.

While a majority of survey respondents place some emphasis on environmental awareness in their homes, 25 percent said they did not know the most important environmental issue facing their community. Recycling of common materials is the most frequently reported action to protect the environment (nearly 75 percent) of Iowans – while other environmental protection actions were far less reported.

The majority of respondents indicated that they use potentially toxic products such as herbicides, pesticides, strong household cleaners and paints. Effectiveness is the most important factor in choice of product but low toxicity is mentioned for all product types. The only product storage guideline mentioned by a majority of respondents was keeping the product out of the reach of children.

Iowans do express concern about health and environmental risks from household products with perceived risks to children being the highest followed by risks to the environment and finally risks to self.

Reported disposal of household items was mixed with recycling high for metal, plastic, and glass food containers (typical curbside materials). The majority of respondents also reported recycling office paper, cardboard, magazines and catalogs. A substantial percentage of Iowans report disposing of batteries containing heavy metals (rechargeable and button-type), strong household cleaners, fluorescent bulbs, and pharmaceuticals by throwing them in the trash. The majority of respondents continue to store weed and bug killers. Of those disposing of these materials, the disposal method is nearly equally split between taking to an RCC and throwing in the trash.

Only one-third of respondents reported they knew what key words to look for when checking product labels. Product labels are required to list the hazardous properties of products: flammable, reactive, corrosive and toxic. Product labels are also required to list "signal words", danger, poison, warning and caution to alert consumers if the product is hazardous.

Toxics in Packaging

The goal of this program is to phase out the use and presence of mercury, lead, cadmium and hexavalent chromium in packaging. Nineteen states, including Iowa, have enacted legislation to support this goal of this program.

Since packaging comprises approximately one-third of the solid waste stream, it is hoped this legislation (Iowa Code 455D.19) will curb the amount of heavy metals entering the municipal solid waste stream and the environment through landfills, incinerators, littering or illegal dumping. A reduced contribution of these metals to the waste stream will gradually lower their harmful presence in the environment.

The Toxics in Packaging Clearinghouse (TPCH) in which Iowa is a member, conducted an assessment of 355 packages by screening them for the heavy metals identified above. Packages were obtained primarily at retail establishments in member states from the across the country and included all types of packaging materials (aluminum, glass, paper, plastic, and steel). One out of every 6 packages exceeded the threshold of 100 ppm for the presence of one or more of the restricted heavy metals. Cadmium and lead were the most frequently detected heavy metals. On average cadmium concentrations for packaging failing the screening was 449 ppm and average lead concentrations were 1,740 ppm.

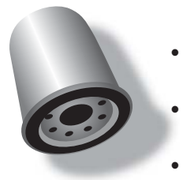
Dialogues with 35 companies selling or distributing the suspected non-compliant packaging material is taking place for voluntary removal of the packaging materials from retail shelves before legal action is initiated.

Once released, the Assessment of Heavy Metals in Packaging report gained national attention being featured on the Good Morning America show and in over 30 print and on-line publications including the New York Times.

A second grant was received from the EPA to continue testing an additional 400 packaging products. Testing is currently taking place under this grant.

Used Oil Filter Legislation

During the 2008 legislative session, Iowa Code 455D.13 was amended by placing certain requirements on oil filter retailers and non-household generation of used oil filters.



Changes to 455D.13 include:

- Retailers selling oil filters are now required to accept used oil filters from the public or post notice of the nearest location where a customer may dispose of used oil filters for recycling.
- Businesses generating used oil filters or collecting used oil filters from a person shall not dispose of the oil filters in a sanitary landfill and shall source separate and recycle the oil filters.
- The term "waste oil" was revised to "used oil".

The Department's administrative rules, Chapter 119, Used Oil and Used Oil Filters, were amended to reflect these changes in Iowa law. Changes to Chapter 119 will become effective on February 4, 2009.

Amending the term "waste oil" to "used oil" reflects a shift in philosophy. Materials once thought to be a waste are now understood to be a resource with economic value in the-market place.

Used oil filters typically contain up to several ounces of oil even after following EPA guidelines on draining the filters. By recycling the used oil filters the used oil is recovered diverting several thousands of gallons of oil from the landfill. Steel oil filter casings are also recovered for recycling and thus diverted from the landfill and marketed as scrap metal. The paper filter media may also be used as an alternative fuel product.

Planned Activities in 2009

- Revision to the retailer's consumer education program materials following a meeting with retail association and retailer representatives. From this meeting, the Department is planning to redesign the required consumer educational materials to better meet the needs of consumers and retailers.
- Pilot RCC collection project targeting improved convenience. The Department is researching sustainable collection alternatives and partnerships to provide household hazardous materials collection opportunities closer to home.
- Promoting fluorescent tube recycling and increasing the number of retailer collection locations.
- Implementing a "Fact and Fallacy" public awareness campaign relating to the switch from broadcasting analog to digital television signals.
- Continue to promote the Regional Collection Center program to counties without proper disposal opportunities for hazardous materials.

ANAEROBIC DIGESTION PROGRAM

Recognizing the enormous opportunities for Iowa communities to convert organic waste streams to renewable energy and other valuable products through the implementation of anaerobic digester systems in the state, the Land Quality Bureau, through the Anaerobic Digestion Program (ADP), set about promoting the digester concept to Iowa communities.

Anaerobic Digestion – Iowa Potential

Through anaerobic digestion processes, manures, food processing wastes, yard wastes and other industrial organic waste streams can be converted to renewable energy and valuable byproducts and diverted from Iowa landfills.

The methane recovered from the process can be used to fuel large industrial processes, such as ethanol production, or to generate electricity and thermal energy for community use. The digested biosolids can be used as fertilizers, soil amendments, and livestock bedding.

The diversion of these waste streams from our landfills is also economically and environmentally significant. According to a 2005 Iowa statewide Municipal Solid Waste (MSW) characterization study, food waste alone accounts for 10.6 percent of the MSW going into Iowa landfills.

Anaerobic Digestion Program

During 2008, the Land Quality Bureau's Anaerobic Digestion Program made significant progress towards its goal of educating Iowa's viable candidate communities and farm organizations of the benefits of anaerobic digestion.

- Iowa communities and industries assisted through outreach and other assistance activities included Webster City in Hamilton County, Shelby County, Denison in Crawford County, Atlantic in Cass County, Washington County, Iowa Falls in Hardin County, Sac County, the University of Iowa, Bison Renewable Energy and Amana Farms.

- In addition in late 2007 and 2008, the Department presented information on community-based and on-farm anaerobic digestion outreach work at a number of local, regional, and national forums, including:

  - Iowa Renewable Energy Association
  - Seventh Annual BioCycle Conference on Renewable Energy from Organics Recycling
  - Iowa Association for Energy Efficiency
  - EPA Regional Meeting
  - American Council for an Energy-Efficient Economy
  - Advancing Renewable Energy in the Midwest

  - Local Food/Local Energy Roundtable
  - BioCycle Conference, Madison, WI
  - Iowa Waste Exchange Quarterly Meeting

- During 2008, the ADP was also invited by the Iowa Department of Economic Development to present information on the ADP to a number of international renewable energy entities considering the development of U.S. satellite businesses in Iowa. Those countries were Germany and Italy. The ADP was also presented to a group of Russians from Iowa-Stavropol Sister State Project.

- The ADP rolled out its GIS-based Iowa Anaerobic Digester Asset Mapping Tool. The Iowa Anaerobic Digester Asset Mapping Tool was designed to assist the DNR and its partners with the identification of Iowa sites that have large quantities of co-digestible feedstocks as well as industries that are large energy users.

To use DNR's GIS-based interactive mapping tool, go to http://www.iowadnr.gov; click on the "Mapping (GIS Interactive)" link in the left menu near the bottom; and select the "Anaerobic Digester Map" link to open the map.

Closing

The Financial and Business Assistance Annual Report presented the challenges and accomplishments of 2008. Each program area helped to conserve natural resources and improve the quality of Iowa's air, water and land through partnering with local governments, business and industry, schools, and private citizens.

The accomplishments of 2008 will be built upon and continue into 2009 and beyond. The lessons learned can be transferred to others while addressing the new challenges that will present themselves. FABA has done much to facilitate sustainability in a time of economic uncertainty and environmental protection necessity.

The programs discussed herein have significantly:

- diverted resources from the waste stream to the recycling stream;
- saved valuable landfill space;
- reduced greenhouse gas emissions;
- conserved natural resources;
- improved the quality of our air, water and land;
- lowered operating costs in both the public and private sectors;
- created and supported new employment and economic growth; and
- improved general awareness and knowledge of environmental issues and the opportunity for Iowans to become environmental stewards.

"The waste of plenty is the resource for scarcity"

THOMAS PEACOCK, AUTHOR
1785 - 1866

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